

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Iron ores (SIC 1010):			
Scientific and technical personnel	330	3.7	(nc)
Scientists	50	.6	(nc)
Chemists	10	.1	0
Geologists, geophysicists, and earth scientists	10	.1	0
All other life scientists	10	.1	(nc)
Computer analysts	20	.2	0
Managers of scientific and technical personnel	40	.4	0
Engineers	170	1.9	(nc)
Civil	10	.1	0
Industrial	10	.1	0
Mechanical	40	.4	0
Metallurgical/metallurgists	30	.3	0
Other, n.e.c.	80	.9	(nc)
Technicians	70	.8	(nc)
Drafter	10	.1	0
Surveyor	20	.2	(nc)
All other engineering technicians	20	.2	(nc)
All other physical and life science technicians	20	.2	(nc)
Copper ores (SIC 1020):			
Scientific and technical personnel	1,190	7.7	(nc)
Scientists	280	1.8	(nc)
Chemists	80	.5	1
Geologists, geophysicists, and earth scientists	130	.8	12
All other physical scientists	20	.1	0
Computer analysts	50	.3	(nc)
Managers of scientific and technical personnel	60	.4	4
Engineers	370	2.4	(nc)
Civil	10	.1	0
Computer	10	.1	0
Mechanical	30	.2	0
Metallurgical/metallurgists	90	.6	1
Other, n.e.c.	230	1.5	(nc)
Technicians	480	3.1	(nc)
Computer programmer	50	.3	0
Drafter	20	.1	5
Surveyor	60	.4	(nc)
All other engineering technicians	120	.8	(nc)
Chemical technicians, except health	190	1.2	2
All other physical and life science technicians	40	.3	0
Lead and zinc ores (SIC 1030):			
Scientific and technical personnel	180	7.2	(nc)
Scientists	60	2.4	(nc)
Geologists, geophysicists, and earth scientists	40	1.6	8

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Lead and zinc ores (SIC 1030)—continued:			
All other life scientists	10	0.4	0
Computer analysts	10	.4	(nc)
Managers of scientific and technical personnel	10	.4	0
Engineers	40	1.6	(nc)
Metallurgical/metallurgists	10	.4	0
Other, n.e.c	30	1.2	(nc)
Technicians	70	2.8	(nc)
Drafter	10	.4	0
Surveyor	30	1.2	(nc)
All other engineering technicians	10	.4	(nc)
All other physical and life science technicians	20	.8	(nc)
Gold and silver ores (SIC 1040):			
Scientific and technical personnel	2,390	13.2	(nc)
Scientists	830	4.6	(nc)
Chemists	70	.4	7
Geologists, geophysicists, and earth scientists	670	3.7	4
All other physical scientists	40	.2	5
Foresters and conservation scientists	10	.1	10
Computer analysts	40	.2	(nc)
Managers of scientific and technical personnel	80	.4	3
Engineers	590	3.3	(nc)
Mechanical	10	.1	26
Metallurgical/metallurgists	120	.7	4
Other, n.e.c	460	2.6	(nc)
Technicians	890	4.9	(nc)
Computer programmer	10	.1	0
Drafter	70	.4	9
Surveyor	230	1.3	(nc)
All other engineering technicians	80	.4	(nc)
Chemical technicians, except health	460	2.5	3
All other physical and life science technicians	40	.2	12
Ferroalloy ores, except vanadium (SIC 1060):			
Scientific and technical personnel	80	.5	(nc)
Scientists	20	.1	(nc)
Chemists	10	.1	0
All other physical scientists	10	.1	(nc)
Managers of scientific and technical personnel	10	.1	0
Other, n.e.c	70	.4	(nc)
Technicians	50	.3	(nc)
All other engineering technicians	50	.3	(nc)

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Metal mining services (SIC 1080):			
Scientific and technical personnel	690	21.2	(nc)
Scientists	460	14.1	6
Geologists, geophysicists, and earth scientists	460	14.1	6
Engineers	70	2.2	(nc)
Metallurgical/metallurgists	10	.3	0
Other, n.e.c.	60	1.8	(nc)
Technicians	160	4.9	(nc)
Drafter	20	.6	20
Surveyor	60	1.8	0
Chemical technicians, except health	50	1.5	0
All other physical and life science technicians	30	.9	13
Misc. metal ores, n.e.c. (SIC 1090):			
Scientific and technical personnel	260	14.8	(nc)
Scientists	50	2.8	10
Geologists, geophysicists, and earth scientists	50	2.8	10
Managers of scientific and technical personnel	10	.6	13
Engineers	60	3.4	(nc)
Metallurgical/metallurgists	10	.6	0
Other, n.e.c.	50	2.8	(nc)
Technicians	140	8.0	(nc)
Drafter	10	.6	0
Surveyor	10	.6	0
All other engineering technicians	20	1.1	(nc)
Chemical technicians, except health	70	4.0	0
All other physical and life science technicians	30	1.7	13
Bituminous coal and lignite mining (SIC 1220):			
Scientific and technical personnel	4,100	3.8	(nc)
Scientists	530	.5	(nc)
Chemists	70	.1	11
Geologists, geophysicists, and earth scientists	110	.1	4
All other physical scientists	90	.1	16
Foresters and conservation scientists	90	.1	14
All other life scientists	10	<	0
Computer analysts	160	.2	4
Managers of scientific and technical personnel	380	.4	9
Engineers	1,270	1.2	(nc)
Civil	70	.1	30
Computer	20	<	13
Industrial	50	<	11
Mechanical	70	.1	8
Other, n.e.c.	1,060	1.0	(nc)

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Bituminous coal and lignite mining (SIC 1220)—continued:			
Technicians	1,920	1.8	(nc)
Computer programmer	100	.1	7
Drafter	220	.2	13
Surveyor	840	.8	(nc)
Civil engineering technician	120	.1	44
All other engineering technicians	300	.3	19
Chemical technicians, except health	210	.2	24
All other physical and life science technicians	130	.1	0
Anthracite mining (SIC 1230):			
Scientific and technical personnel	20	1.4	(nc)
Engineers	10	.7	(nc)
Other, n.e.c.	10	.7	(nc)
Technicians	10	.7	(nc)
All other engineering technicians	10	.7	(nc)
Coal mining services (SIC 1240):			
Scientific and technical personnel	170	2.9	(nc)
Scientists	10	.2	(nc)
All other physical scientists	10	.2	(nc)
Managers of scientific and technical personnel	10	.2	0
Engineers	70	1.2	(nc)
Other, n.e.c.	70	1.2	(nc)
Technicians	80	1.4	(nc)
Drafter	10	.2	0
Surveyor	30	.5	(nc)
All other engineering technicians	10	.2	0
All other physical and life science technicians	30	.5	(nc)
Crude petroleum and natural gas (SIC 1310):			
Scientific and technical personnel	39,280	22.9	(nc)
Scientists	12,140	7.1	(nc)
Operations and systems researchers and analysts	360	.2	3
Chemists	190	.1	0
Geologists, geophysicists, and earth scientists	6,480	3.8	8
All other physical scientists	220	.1	6
Life scientists	110	.1	0
Economists	1,470	.9	5
All other social scientists	40	<	0
Computer analysts	3,270	1.9	(nc)
Managers of scientific and technical personnel	2,120	1.2	13
Engineers	12,820	7.5	(nc)
Chemical	420	.2	9
Civil	350	.2	0

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Crude petroleum and natural gas (SIC 1310)—continued:			
Computer	250	0.2	18
Electrical/electronics	190	.1	1
Industrial	200	.1	1
Mechanical	890	.5	1
Safety	450	.3	4
Sales	160	.1	17
Other, n.e.c	9,910	5.8	(nc)
Technicians	12,200	7.1	(nc)
Computer programmer	1,560	.9	9
Drafter	1,320	.8	15
Surveyor	580	.3	(nc)
Electrical/electronics engineering technician	490	.3	24
Mechanical engineering technicians	480	.3	30
Civil engineering technician	50	<	0
All other engineering technicians	3,510	2.0	43
Chemical technicians, except health	280	.2	26
All other physical and life science technicians	3,930	2.3	(nc)
Natural gas liquids (SIC 1320):			
Scientific and technical personnel	430	8.5	(nc)
Scientists	160	3.2	(nc)
Chemists	20	.4	6
All other physical scientists	70	1.4	(nc)
All other social scientists	10	.2	(nc)
Computer analysts	60	1.2	(nc)
Managers of scientific and technical personnel	30	.6	6
Engineers	100	2.0	(nc)
Chemical	10	.2	0
Other, n.e.c	90	1.8	(nc)
Technicians	140	2.8	(nc)
All other engineering technicians	60	1.2	(nc)
All other physical and life science technicians	80	1.6	(nc)
Oil and gas field services (SIC 1380):			
Scientific and technical personnel	13,360	8.3	(nc)
Scientists	1,860	1.2	(nc)
Operations and systems researchers and analysts	50	<	0
Chemists	130	.1	48
Geologists, geophysicists, and earth scientists	1,430	.9	17
All other physical scientists	30	<	4
Economists	30	<	0
Computer analysts	190	.1	17
Managers of scientific and technical personnel	910	.6	16
Engineers	6,110	3.8	(nc)
Chemical	260	.2	12
Civil	160	.1	5

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Oil and gas field services (SIC 1380)—continued:			
Computer	130	0.1	10
Electrical/electronics	280	.2	3
Industrial	40	<	7
Marine	60	<	0
Mechanical	580	.4	2
Safety	80	<	13
Sales	1,160	.7	15
Other, n.e.c	3,360	2.1	(nc)
Technicians	4,480	2.8	(nc)
Computer programmer	260	.2	18
Drafter	320	.2	21
Surveyor	560	.4	(nc)
Electrical/electronics engineering technician	430	.3	6
Mechanical engineering technicians	270	.2	3
All other engineering technicians	440	.3	(nc)
Chemical technicians, except health	400	.2	72
All other physical and life science technicians	1,800	1.1	(nc)
Dimension stone (SIC 1410):			
Scientific and technical personnel	20	.5	(nc)
Engineers	10	.3	(nc)
Other, n.e.c	10	.3	(nc)
Technicians	10	.3	(nc)
All other engineering technicians	10	.3	(nc)
Crushed and broken stone (SIC 1420):			
Scientific and technical personnel	850	2.2	(nc)
Scientists	160	.4	(nc)
Chemists	20	<	0
Geologists, geophysicists, and earth scientists	50	.1	13
All other physical scientists	10	<	0
All other life scientists	10	<	(nc)
Computer analysts	70	.2	(nc)
Managers of scientific and technical personnel	110	.3	11
Engineers	240	.6	(nc)
Civil	30	.1	4
Mechanical	20	<	0
Metallurgical/metallurgists	30	.1	23
Other, n.e.c	160	.4	(nc)
Technicians	340	.9	(nc)
Computer programmer	60	.2	4
Drafter	30	.1	8
Surveyor	30	.1	(nc)
All other engineering technicians	60	.2	(nc)
Chemical technicians, except health	140	.4	8
All other physical and life science technicians	20	<	0

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Sand and gravel (SIC 1440):			
Scientific and technical personnel	340	1.0	(nc)
Scientists	30	.1	(nc)
Chemists	10	<	0
Geologists, geophysicists, and earth scientists	10	<	31
Computer analysts	10	<	(nc)
Managers of scientific and technical personnel	20	.1	7
Engineers	160	.5	(nc)
Civil	10	<	18
Mechanical	10	<	20
Metallurgical/metallurgists	20	.1	40
Other, n.e.c.	120	.4	(nc)
Technicians	130	.4	(nc)
Computer programmer	20	.1	0
Drafter	10	<	20
Surveyor	10	<	30
All other engineering technicians	10	<	11
Chemical technicians, except health	80	.2	8
Clay, ceramic, and refractory minerals (SIC 1450):			
Scientific and technical personnel	560	7.5	(nc)
Scientists	100	1.3	(nc)
Chemists	60	.8	0
Geologists, geophysicists, and earth scientists	10	.1	0
All other physical scientists	10	.1	0
Computer analysts	20	.3	(nc)
Managers of scientific and technical personnel	40	.5	0
Engineers	100	1.3	(nc)
Industrial	20	.3	0
Mechanical	10	.1	0
Metallurgical/metallurgists	20	.3	0
Other, n.e.c.	50	.7	(nc)
Technicians	320	4.3	(nc)
Drafter	20	.3	0
Surveyor	30	.4	(nc)
All other engineering technicians	20	.3	(nc)
Chemical technicians, except health	220	2.9	1
All other physical and life science technicians	30	.4	0
Chemical and fertilizer minerals (SIC 1470):			
Scientific and technical personnel	860	6.4	(nc)
Scientists	100	.7	(nc)
Chemists	40	.3	0
Geologists, geophysicists, and earth scientists	40	.3	18
All other physical scientists	10	.1	0
Computer analysts	10	.1	0

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Chemical and fertilizer minerals (SIC 1470)—continued:			
Managers of scientific and technical personnel	60	0.4	0
Engineers	330	2.4	(nc)
Civil	10	.1	0
Mechanical	30	.2	0
Metallurgical/metallurgists	30	.2	0
Other, n.e.c.	260	1.9	(nc)
Technicians	370	2.7	(nc)
Drafter	40	.3	5
Surveyor	50	.4	(nc)
All other engineering technicians	70	.5	(nc)
Chemical technicians, except health	150	1.1	0
All other physical and life science technicians	60	.4	0
Nonmetallic minerals services (SIC 1480):			
Scientific and technical personnel	90	8.6	(nc)
Scientists	70	6.7	17
Geologists, geophysicists, and earth scientists	70	6.7	17
Technicians	20	1.9	(nc)
Drafter	10	1.0	16
All other engineering technicians	10	1.0	(nc)
Misc. nonmetallic minerals (SIC 1490):			
Scientific and technical personnel	150	2.9	(nc)
Scientists	30	.6	(nc)
Chemists	20	.4	0
Geologists, geophysicists, and earth scientists	10	.2	17
Managers of scientific and technical personnel	10	.2	0
Engineers	50	1.0	(nc)
Metallurgical/metallurgists	10	.2	0
Other, n.e.c.	40	.8	(nc)
Technicians	60	1.1	(nc)
Surveyor	10	.2	0
All other engineering technicians	10	.2	(nc)
Chemical technicians, except health	30	.6	0
All other physical and life science technicians	10	.2	0
Residential building construction (SIC 1520):			
Scientific and technical personnel	3,900	.7	(nc)
Scientists	40	.0	(nc)
Physical scientists	10	.0	55
Computer analysts	30	.0	(nc)
Managers of scientific and technical personnel	180	<	53

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Residential building construction (SIC 1520)—continued:			
Engineers	810	0.1	(nc)
Civil	680	.1	32
Computer	10	.0	28
Safety	60	<	27
Other, n.e.c.	60	<	(nc)
Technicians	2,870	.5	(nc)
Computer programmer	40	<	31
Drafter	2,570	.4	8
Surveyor	20	.0	28
Civil engineering technician	100	<	33
All other engineering technicians	140	<	(nc)
Operative builders (SIC 1530):			
Scientific and technical personnel	450	1.6	(nc)
Scientists	20	.1	0
Computer analysts	20	.1	0
Managers of scientific and technical personnel	40	.1	0
Engineers	120	.4	(nc)
Civil	110	.4	3
Computer	10	<	0
Technicians	270	1.0	(nc)
Computer programmer	30	.1	34
Drafter	240	.8	5
Nonresidential building construction (SIC 1540):			
Scientific and technical personnel	12,010	2.3	(nc)
Scientists	250	<	(nc)
Operations and systems researchers and analysts	20	.0	17
Physical scientists	40	<	98
Computer analysts	190	<	(nc)
Managers of scientific and technical personnel	850	.2	6
Engineers	7,620	1.4	(nc)
Civil	3,280	.6	8
Computer	60	<	6
Electrical/electronics	340	.1	4
Mechanical	2,080	.4	1
Safety	500	.1	15
Sales	180	<	21
Other, n.e.c.	1,180	.2	(nc)
Technicians	3,290	.6	(nc)
Computer programmer	170	<	7
Drafter	1,950	.4	11
Surveyor	380	.1	(nc)
Electrical/electronics engineering technician	80	<	1

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Nonresidential building construction (SIC 1540)—continued:			
Mechanical engineering technicians	70	<	1
Civil engineering technician	370	.1	9
All other engineering technicians	260	<	11
Physical and life science technicians	10	.0	0
Highway and street construction (SIC 1610):			
Scientific and technical personnel	2,960	1.3	(nc)
Scientists	30	<	8
Computer analysts	30	<	8
Managers of scientific and technical personnel	240	.1	4
Engineers	1,520	.7	(nc)
Chemical	10	.0	13
Civil	1,070	.5	2
Computer	20	<	0
Electrical/electronics	10	.0	0
Industrial	110	<	16
Mechanical	90	<	14
Safety	130	.1	7
Sales	50	<	28
Other, n.e.c.	30	<	19
Technicians	1,170	.5	(nc)
Computer programmer	80	<	6
Drafter	80	<	16
Surveyor	600	.3	(nc)
Mechanical engineering technicians	20	<	57
Civil engineering technician	130	.1	7
All other engineering technicians	170	.1	(nc)
Physical and life science technicians	90	<	47
Heavy construction, except highway (SIC 1620):			
Scientific and technical personnel	18,270	3.6	(nc)
Scientists	570	.1	(nc)
Operations and systems researchers and analysts	20	.0	0
Physical scientists	100	<	25
Life scientists	40	<	0
Computer analysts	410	.1	(nc)
Managers of scientific and technical personnel	1,470	.3	4
Engineers	10,950	2.2	(nc)
Chemical	1,070	.2	1
Civil	4,530	.9	7
Electrical/electronics	880	.2	22
Industrial	610	.1	1
Mechanical	2,070	.4	5
Safety	480	.1	9
Sales	220	<	29
Other, n.e.c.	1,090	.2	(nc)

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Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Heavy construction, except highway (SIC 1620)—continued:			
Technicians	5,280	1.0	(nc)
Computer programmer	430	.1	3
Drafter	1,360	.3	5
Surveyor	1,210	.2	(nc)
Electrical/electronics engineering technician	300	.1	3
Mechanical engineering technicians	820	.2	1
Civil engineering technician	420	.1	3
All other engineering technicians	610	.1	21
Physical and life science technicians	130	<	25
Plumbing, heating, air conditioning (SIC 1710):			
Scientific and technical personnel	9,480	1.5	(nc)
Scientists	60	.0	(nc)
Computer analysts	60	.0	(nc)
Managers of scientific and technical personnel	20	.0	42
Engineers	4,250	.7	(nc)
Electrical/electronics	160	<	30
Mechanical	220	<	18
Safety	30	.0	49
Sales	3,720	.6	7
Other, n.e.c.	120	<	(nc)
Technicians	5,150	.8	(nc)
Computer programmer	80	<	22
Drafter	4,810	.8	6
Mechanical engineering technicians	10	.0	35
Civil engineering technician	20	.0	62
All other engineering technicians	230	<	(nc)
Painting and paper hanging (SIC 1720):			
Scientific and technical personnel	20	<	(nc)
Engineers	10	<	(nc)
Safety	10	<	0
Technicians	10	<	(nc)
All other engineering technicians	10	<	(nc)
Electrical work (SIC 1730):			
Scientific and technical personnel	13,320	2.6	(nc)
Scientists	110	<	(nc)
Physical scientists	30	<	97
Computer analysts	80	<	(nc)
Managers of scientific and technical personnel	70	<	37
Engineers	6,660	1.3	(nc)
Computer	230	<	33
Electrical/electronics	6,240	1.2	15

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Electrical work (SIC 1730)—continued:			
Mechanical	20	0.0	31
Safety	10	.0	35
Sales	110	<	54
Other, n.e.c	50	<	(nc)
Technicians	6,480	1.3	(nc)
Computer programmer	80	<	24
Drafter	330	.1	21
Surveyor	10	.0	0
Electrical/electronics engineering technician	5,870	1.2	9
All other engineering technicians	80	<	(nc)
Physical and life science technicians	110	<	97
Masonry, stonework, and plastering (SIC 1740):			
Scientific and technical personnel	220	.1	(nc)
Scientists	10	.0	32
Computer analysts	10	.0	32
Engineers	50	<	(nc)
Civil	10	.0	59
Safety	10	.0	0
Sales	20	<	40
Other, n.e.c	10	.0	12
Technicians	160	<	(nc)
Computer programmer	80	<	41
Drafter	60	<	32
All other engineering technicians	20	<	(nc)
Carpentry and floor work (SIC 1750):			
Scientific and technical personnel	270	.2	(nc)
Engineers	60	<	(nc)
Other, n.e.c	60	<	(nc)
Technicians	210	.1	(nc)
Computer programmer	10	<	0
Drafter	170	.1	48
All other engineering technicians	30	<	(nc)
Roofing, siding, and sheet-metal work (SIC 1760):			
Scientific and technical personnel	560	.3	(nc)
Engineers	10	<	(nc)
Other, n.e.c	10	<	(nc)
Technicians	550	.3	(nc)
Computer programmer	10	<	29
Drafter	540	.3	4
Concrete work (SIC 1770):			
Scientific and technical personnel	240	.1	(nc)

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Concrete work (SIC 1770)—continued:			
Scientists	20	<	33
Computer analysts	20	<	33
Engineers	50	<	(nc)
Civil	40	<	33
Other, n.e.c.	10	.0	(nc)
Technicians	170	.1	(nc)
Computer programmer	10	.0	23
Drafter	50	<	33
Surveyor	70	<	43
Civil engineering technician	20	<	17
All other engineering technicians	20	<	(nc)
Water-well drilling (SIC 1780):			
Scientific and technical personnel	30	.2	(nc)
Engineers	10	<	(nc)
Other, n.e.c.	10	<	(nc)
Technicians	20	.1	14
Drafter	20	.1	14
Misc. special trade contractors (SIC 1790):			
Scientific and technical personnel	4,060	.8	(nc)
Scientists	200	<	(nc)
Physical scientists	140	<	41
Life scientists	30	<	19
Computer analysts	30	.0	(nc)
Managers of scientific and technical personnel	70	<	49
Engineers	770	.2	(nc)
Civil	260	<	31
Electrical/electronics	80	<	41
Industrial	40	<	31
Mechanical	130	<	44
Safety	140	<	50
Sales	40	<	42
Other, n.e.c.	80	<	(nc)
Technicians	3,020	.6	(nc)
Computer programmer	60	<	17
Drafter	2,370	.5	10
Surveyor	110	<	(nc)
Electrical/electronics engineering technician	120	<	18
Mechanical engineering technicians	50	<	7
Civil engineering technician	130	<	3
All other engineering technicians	150	<	17
Physical and life science technicians	30	<	88

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Central reserve depositories (SIC 6010):			
Scientific and technical personnel	2,940	11.2	(nc)
Scientists	2,100	8.0	(nc)
Operations and systems researchers and analysts	100	.4	0
Statisticians	90	.3	0
All other mathematicians	10	<	0
Economists	340	1.3	0
All other social scientists	60	.2	0
Computer analysts	1,500	5.7	(nc)
Managers of scientific and technical personnel	260	1.0	0
Engineers	160	.6	(nc)
Computer	130	.5	0
Industrial	10	<	0
Other, n.e.c.	20	.1	(nc)
Technicians	420	1.6	(nc)
Computer programmer	400	1.5	0
All other engineering technicians	20	.1	(nc)
Commercial banks (SIC 6020):			
Scientific and technical personnel	33,290	2.2	(nc)
Scientists	18,970	1.3	(nc)
Operations and systems researchers and analysts	3,360	.2	1
Statisticians	130	<	1
All other mathematicians	280	<	24
Life scientists	10	.0	0
Economists	720	<	<
All other social scientists	20	.0	4
Computer analysts	14,450	1.0	(nc)
Managers of scientific and technical personnel	3,550	.2	5
Engineers	1,240	.1	(nc)
Computer	980	.1	8
Electrical/electronics	80	<	19
Industrial	10	.0	0
Other, n.e.c.	170	<	2
Technicians	9,530	.6	(nc)
Computer programmer	9,270	.6	4
Drafter	20	.0	0
All other engineering technicians	240	<	2
Savings institutions (SIC 6030):			
Scientific and technical personnel	4,990	1.5	(nc)
Scientists	2,570	.8	(nc)
Operations and systems researchers and analysts	250	.1	18
Statisticians	30	<	11
Economists	100	<	16
All other social scientists	40	<	8

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Savings institutions (SIC 6030)—continued:			
Computer analysts	2,150	0.7	(nc)
Managers of scientific and technical personnel	790	.2	6
Engineers	150	<	(nc)
Computer	110	<	16
Electrical/electronics	10	.0	0
Other, n.e.c.	30	<	(nc)
Technicians	1,480	.4	2
Computer programmer	1,480	.4	2
Credit unions (SIC 6060):			
Scientific and technical personnel	1,440	1.0	(nc)
Scientists	700	.5	(nc)
Operations and systems researchers and analysts	40	<	6
Economists	40	<	17
Computer analysts	620	.4	(nc)
Managers of scientific and technical personnel	210	.1	11
Engineers	40	<	(nc)
Computer	30	<	19
Other, n.e.c.	10	<	(nc)
Technicians	490	.3	(nc)
Computer programmer	410	.3	6
All other engineering technicians	80	<	(nc)
Foreign banks and branches and agencies (SIC 6080):			
Scientific and technical personnel	960	2.8	(nc)
Scientists	600	1.8	(nc)
Economists	70	.2	3
Computer analysts	530	1.6	(nc)
Managers of scientific and technical personnel	100	.3	41
Engineers	60	.2	(nc)
Computer	30	.1	53
Other, n.e.c.	30	.1	(nc)
Technicians	200	.6	12
Computer programmer	200	.6	12
Functions closely related to banking (SIC 6090):			
Scientific and technical personnel	4,470	7.1	(nc)
Scientists	1,810	2.9	(nc)
Operations and systems researchers and analysts	310	.5	0
Statisticians	30	<	0
All other mathematicians	10	<	0
Economists	40	.1	7

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Functions closely related to banking (SIC 6090)—continued:			
Computer analysts	1,420	2.3	(nc)
Managers of scientific and technical personnel	670	1.1	0
Engineers	300	.5	(nc)
Computer	170	.3	0
Other, n.e.c.	130	.2	(nc)
Technicians	1,690	2.7	(nc)
Computer programmer	1,680	2.7	4
All other engineering technicians	10	<	(nc)
Federal and federally sponsored credit (SIC 6110):			
Scientific and technical personnel	930	5.2	(nc)
Scientists	530	2.9	(nc)
Operations and systems researchers and analysts	50	.3	0
Economists	80	.4	0
Computer analysts	400	2.2	(nc)
Managers of scientific and technical personnel	30	.2	0
Technicians	370	2.0	1
Computer programmer	370	2.0	1
Personal credit institutions (SIC 6140):			
Scientific and technical personnel	2,410	1.8	(nc)
Scientists	1,260	1.0	(nc)
Operations and systems researchers and analysts	60	<	0
Statisticians	30	<	0
Economists	10	<	0
Computer analysts	1,160	.9	(nc)
Managers of scientific and technical personnel	230	.2	9
Engineers	10	<	(nc)
Computer	10	<	0
Technicians	910	.7	(nc)
Computer programmer	900	.7	7
All other engineering technicians	10	<	0
Business credit institutions (SIC 6150):			
Scientific and technical personnel	2,960	3.6	(nc)
Scientists	1,500	1.8	(nc)
Operations and systems researchers and analysts	230	.3	10
Statisticians	20	<	26
All other mathematicians	10	<	0
Economists	80	.1	0
Computer analysts	1,160	1.4	(nc)
Managers of scientific and technical personnel	330	.4	5

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Business credit institutions (SIC 6150)—continued:			
Engineers	170	0.2	(nc)
Computer	50	.1	37
Electrical/electronics	20	<	0
Other, n.e.c.	100	.1	(nc)
Technicians	960	1.2	4
Computer programmer	960	1.2	4
Mortgage bankers and brokers (SIC 6160):			
Scientific and technical personnel	2,860	1.3	(nc)
Scientists	1,250	.6	(nc)
Operations and systems researchers and analysts	100	<	19
Statisticians	10	.0	16
Economists	120	<	37
Computer analysts	1,020	.5	(nc)
Managers of scientific and technical personnel	310	.1	8
Engineers	140	.1	(nc)
Computer	110	<	45
Other, n.e.c.	30	<	(nc)
Technicians	1,160	.5	(nc)
Computer programmer	1,150	.5	16
Drafter	10	.0	0
Security brokers and dealers (SIC 6210):			
Scientific and technical personnel	12,600	3.6	(nc)
Scientists	6,720	1.9	(nc)
Operations and systems researchers and analysts	350	.1	10
Statisticians	40	<	0
All other mathematicians	80	<	40
Economists	2,040	.6	6
All other social scientists	20	<	0
Computer analysts	4,190	1.2	(nc)
Managers of scientific and technical personnel	450	.1	5
Engineers	360	.1	(nc)
Computer	280	.1	4
Other, n.e.c.	80	<	(nc)
Technicians	5,070	1.4	(nc)
Computer programmer	5,040	1.4	3
Drafter	10	.0	0
All other engineering technicians	20	<	0
Commodity contracts, brokers, and dealers (SIC 6220):			
Scientific and technical personnel	610	3.9	(nc)
Scientists	300	1.9	(nc)

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Commodity contracts, brokers, and dealers (SIC 6220)—continued:			
All other mathematicians	10	0.1	(nc)
Economists	190	1.2	4
Computer analysts	100	.6	(nc)
Managers of scientific and technical personnel	30	.2	8
Engineers	30	.2	(nc)
Computer	20	.1	16
Other, n.e.c.	10	.1	(nc)
Technicians	250	1.6	(nc)
Computer programmer	240	1.5	16
All other engineering technicians	10	.1	47
Security and commodity exchanges (SIC 6230):			
Scientific and technical personnel	650	8.7	(nc)
Scientists	290	3.9	(nc)
Statisticians	30	.4	0
Economists	140	1.9	0
Computer analysts	120	1.6	(nc)
Managers of scientific and technical personnel	30	.4	0
Engineers	30	.4	(nc)
Other, n.e.c.	30	.4	(nc)
Technicians	300	4.0	(nc)
Computer programmer	290	3.9	<
All other engineering technicians	10	.1	0
Security and commodity services (SIC 6280):			
Scientific and technical personnel	7,770	8.8	(nc)
Scientists	4,870	5.5	(nc)
Operations and systems researchers and analysts	100	.1	11
Statisticians	100	.1	13
All other mathematicians	1,290	1.5	<
Economists	540	.6	18
Computer analysts	2,840	3.2	(nc)
Managers of scientific and technical personnel	430	.5	5
Engineers	430	.5	(nc)
Computer	150	.2	0
Electrical/electronics	200	.2	2
Other, n.e.c.	80	.1	0
Technicians	2,040	2.3	(nc)
Computer programmer	1,970	2.2	5
All other engineering technicians	70	.1	(nc)
Life insurance (SIC 6310):			
Scientific and technical personnel	35,750	8.1	(nc)

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Life insurance (SIC 6310)—continued:			
Scientists	21,200	4.8	(nc)
Operations and systems researchers and analysts	2,080	.5	<
Statisticians	570	.1	2
All other mathematicians	4,020	.9	(nc)
Physical scientists	30	<	0
Social scientists	800	.2	4
Computer analysts	13,700	3.1	(nc)
Managers of scientific and technical personnel	2,120	.5	2
Engineers	1,230	.3	(nc)
Computer	610	.1	1
Industrial	50	<	5
Mechanical	20	.0	5
Safety	220	<	11
Other, n.e.c.	330	.1	(nc)
Technicians	11,200	2.5	(nc)
Computer programmer	10,580	2.4	1
All other engineering technicians	260	.1	(nc)
Physical and life science technicians	10	.0	0
Mathematical technicians	350	.1	2
Medical service and health insurance (SIC 6320):			
Scientific and technical personnel	22,740	8.2	(nc)
Scientists	13,620	4.9	(nc)
Operations and systems researchers and analysts	3,030	1.1	3
Statisticians	440	.2	0
All other mathematicians	1,100	.4	(nc)
Social scientists	200	.1	5
Computer analysts	8,850	3.2	(nc)
Managers of scientific and technical personnel	1,910	.7	1
Engineers	460	.2	(nc)
Computer	380	.1	4
Industrial	40	<	0
Safety	20	<	11
Other, n.e.c.	20	<	(nc)
Technicians	6,750	2.4	(nc)
Computer programmer	6,600	2.4	3
Drafter	20	<	0
All other engineering technicians	90	<	(nc)
Mathematical technicians	40	<	0
Fire, marine, and casualty insurance (SIC 6330):			
Scientific and technical personnel	31,400	5.8	(nc)
Scientists	15,530	2.9	(nc)
Operations and systems researchers and analysts	1,600	.3	3
Statisticians	460	.1	8

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Fire, marine, and casualty insurance (SIC 6330)—continued:			
All other mathematicians	2,030	0.4	(nc)
Social scientists	280	<	10
Computer analysts	11,160	2.1	(nc)
Managers of scientific and technical personnel	2,370	.4	7
Engineers			
Computer	3,280	.6	(nc)
Industrial	360	.1	15
Mechanical	80	<	30
Safety	40	<	13
Other, n.e.c.	2,480	.5	6
.....	320	.1	(nc)
Technicians			
Computer programmer	10,220	1.9	(nc)
Drafter	9,820	1.8	2
All other engineering technicians	100	<	0
Mathematical technicians	220	<	(nc)
.....	80	<	2
Surety insurance (SIC 6350):			
Scientific and technical personnel	1,000	5.8	(nc)
Scientists			
Operations and systems researchers and analysts	430	2.5	(nc)
Statisticians	30	.2	11
All other mathematicians	10	.1	0
Computer analysts	40	.2	0
.....	350	2.0	(nc)
Managers of scientific and technical personnel	80	.5	0
Engineers			
Computer	110	.6	(nc)
Other, n.e.c.	20	.1	0
.....	90	.5	(nc)
Technicians			
Computer programmer	380	2.2	3
.....	380	2.2	3
Title insurance (SIC 6360):			
Scientific and technical personnel	1,060	1.5	(nc)
Scientists			
Computer analysts	360	.5	(nc)
.....	360	.5	(nc)
Managers of scientific and technical personnel	80	.1	31
Engineers			
Computer	20	<	(nc)
.....	20	<	0
Technicians			
Computer programmer	600	.8	(nc)
Surveyor	440	.6	18
All other engineering technicians	140	.2	(nc)
.....	20	<	(nc)

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Pension, health, and welfare funds (SIC 6370):			
Scientific and technical personnel	2,000	5.1	(nc)
Scientists	830	2.1	(nc)
Statisticians	10	<	0
All other mathematicians	140	.4	(nc)
Social scientists	120	.3	19
Computer analysts	560	1.4	(nc)
Managers of scientific and technical personnel	60	.2	5
Engineers	40	.1	(nc)
Other, n.e.c.	40	.1	(nc)
Technicians	1,070	2.7	(nc)
Computer programmer	1,060	2.7	2
All other engineering technicians	10	<	(nc)
Insurance carriers, n.e.c. (SIC 6390):			
Scientific and technical personnel	60	3.0	(nc)
Scientists	20	1.0	10
Computer analysts	20	1.0	10
Technicians	40	2.0	7
Computer programmer	40	2.0	7
Insurance agents, brokers, and service (SIC 6410):			
Scientific and technical personnel	15,720	2.4	(nc)
Scientists	7,820	1.2	(nc)
Operations and systems researchers and analysts	190	<	10
Statisticians	400	.1	11
All other mathematicians	2,100	.3	(nc)
Social scientists	70	<	54
Computer analysts	5,060	.8	(nc)
Managers of scientific and technical personnel	1,210	.2	5
Engineers	1,750	.3	(nc)
Computer	260	<	3
Industrial	50	<	55
Safety	970	.2	18
Other, n.e.c.	470	.1	(nc)
Technicians	4,940	.7	(nc)
Computer programmer	4,560	.7	4
All other engineering technicians	160	<	(nc)
Physical and life science technicians	40	<	0
Mathematical technicians	180	<	26
Real estate operators and lessors (SIC 6510):			
Scientific and technical personnel	2,150	.4	(nc)
Scientists	410	.1	(nc)

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Real estate operators and lessors (SIC 6510)—continued:			
Operations and systems researchers and analysts	20	0.0	13
Social scientists	140	<	42
Computer analysts	250	<	(nc)
Managers of scientific and technical personnel	360	.1	27
Engineers	970	.2	(nc)
Civil	40	<	34
Computer	20	.0	38
Industrial	120	<	55
Mechanical	460	.1	19
Other, n.e.c	330	.1	(nc)
Technicians	410	.1	(nc)
Computer programmer	240	<	32
Drafter	90	<	15
All other engineering technicians	80	<	(nc)
Real estate agents and managers (SIC 6530):			
Scientific and technical personnel	2,710	.4	(nc)
Scientists	660	.1	(nc)
Operations and systems researchers and analysts	20	.0	11
Statisticians	20	.0	0
All other mathematicians	10	.0	(nc)
Social scientists	100	<	3
Computer analysts	510	.1	(nc)
Managers of scientific and technical personnel	330	<	9
Engineers	660	.1	(nc)
Civil	30	.0	8
Computer	30	.0	23
Industrial	30	.0	4
Mechanical	310	<	21
Safety	40	<	25
Other, n.e.c	220	<	21
Technicians	1,060	.2	(nc)
Computer programmer	670	.1	13
Drafter	230	<	12
Surveyor	80	<	(nc)
All other engineering technicians	80	<	15
Title abstract offices (SIC 6540):			
Scientific and technical personnel	150	.4	(nc)
Scientists	40	.1	(nc)
Computer analysts	40	.1	(nc)
Managers of scientific and technical personnel	20	.1	15
Technicians	90	.3	(nc)
Computer programmer	40	.1	7

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Title abstract offices (SIC 6540)—continued:			
Drafter	10	<	0
Surveyor	30	.1	25
All other engineering technicians	10	<	(nc)
Subdividers and developers (SIC 6550):			
Scientific and technical personnel	1,360	1.2	(nc)
Scientists			
Operations and systems researchers and analysts	140	.1	(nc)
Social scientists	10	<	28
Computer analysts	30	<	15
Managers of scientific and technical personnel	100	.1	(nc)
Managers of scientific and technical personnel	130	.1	8
Engineers			
Civil	350	.3	(nc)
Computer	190	.2	26
Mechanical	20	<	0
Safety	20	<	17
Other, n.e.c.	20	<	43
Other, n.e.c.	100	.1	(nc)
Technicians			
Computer programmer	740	.6	(nc)
Drafter	100	.1	5
Surveyor	300	.3	31
All other engineering technicians	210	.2	(nc)
All other engineering technicians	130	.1	63
Holding offices (SIC 6710):			
Scientific and technical personnel	8,210	7.9	(nc)
Scientists			
Operations and systems researchers and analysts	4,080	3.9	(nc)
Statisticians	210	.2	1
All other mathematicians	80	.1	25
Physical scientists	60	.1	37
Life scientists	440	.4	9
Economists	20	<	0
All other social scientists	200	.2	6
Computer analysts	50	<	28
Computer analysts	3,020	2.9	(nc)
Managers of scientific and technical personnel	710	.7	9
Engineers			
Computer	1,040	1.0	(nc)
Electrical/electronics	70	.1	4
Industrial	400	.4	5
Other, n.e.c.	60	.1	27
Other, n.e.c.	510	.5	15
Technicians			
Computer programmer	2,380	2.3	(nc)
Drafter	1,570	1.5	6
All other engineering technicians	360	.4	26
Physical and life science technicians	110	.1	18
Physical and life science technicians	340	.3	0

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Investment offices (SIC 6720):			
Scientific and technical personnel	350	2.5	(nc)
Scientists	180	1.3	(nc)
Physical scientists	20	.1	0
Life scientists	10	.1	0
Economists	20	.1	0
All other social scientists	10	.1	0
Computer analysts	120	.8	(nc)
Managers of scientific and technical personnel	20	.1	0
Engineers	20	.1	(nc)
Computer	20	.1	0
Technicians	130	.9	0
Computer programmer	130	.9	0
Trusts (SIC 6730):			
Scientific and technical personnel	2,010	4.8	(nc)
Scientists	730	1.7	(nc)
Operations and systems researchers and analysts	20	<	41
All other mathematicians	10	<	65
Physical scientists	20	<	46
Life scientists	320	.8	94
Economists	20	<	0
All other social scientists	90	.2	12
Computer analysts	250	.6	(nc)
Managers of scientific and technical personnel	70	.2	12
Engineers	810	1.9	(nc)
Computer	10	<	20
Other, n.e.c.	800	1.9	1
Technicians	400	1.0	(nc)
Computer programmer	210	.5	33
All other engineering technicians	130	.3	(nc)
Physical and life science technicians	60	.1	15
Misc. Investing (SIC 6790):			
Scientific and technical personnel	890	2.6	(nc)
Scientists	450	1.3	(nc)
All other mathematicians	20	.1	89
Physical scientists	180	.5	31
Economists	40	.1	15
Computer analysts	210	.6	(nc)
Managers of scientific and technical personnel	80	.2	26
Engineers	130	.4	(nc)
Other, n.e.c.	130	.4	(nc)

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Misc. investing (SIC 6790)—continued:			
Technicians	230	0.7	(nc)
Computer programmer	180	.5	14
Drafter	20	.1	35
All other engineering technicians	30	.1	0
Hotels and motels (SIC 7010):			
Scientific and technical personnel	6,580	.4	(nc)
Scientists	780	<	(nc)
Life scientists	10	.0	0
Computer analysts	770	<	(nc)
Engineers	4,130	.3	(nc)
Computer	230	<	9
Electrical/electronics	730	<	10
Mechanical	1,870	.1	10
Other, n.e.c.	1,300	.1	6
Technicians	1,670	.1	(nc)
Computer programmer	460	<	4
Drafter	30	.0	3
Electrical/electronics engineering technician	560	<	8
All other engineering technicians	620	<	10
Camps and recreational vehicle parks (SIC 7030):			
Scientific and technical personnel	20	.1	(nc)
Scientists	10	<	(nc)
Computer analysts	10	<	(nc)
Engineers	10	<	(nc)
Other, n.e.c.	10	<	(nc)
Membership-basis organization hotels (SIC 7040):			
Scientific and technical personnel	40	.4	(nc)
Scientists	20	.2	(nc)
Life scientists	10	.1	0
Computer analysts	10	.1	(nc)
Engineers	20	.2	(nc)
Other, n.e.c.	20	.2	(nc)
Laundry, cleaning, and garment services (SIC 7210):			
Scientific and technical personnel	470	.1	(nc)
Scientists	100	<	(nc)
Life scientists	10	.0	54
Computer analysts	90	<	(nc)
Engineers	270	.1	8
Technicians	100	<	19

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Laundry, cleaning, and garment services (SIC 7210)—continued:			
Computer programmer	100	<	19
Photographic studios, portrait (SIC 7220):			
Scientific and technical personnel	60	.1	(nc)
Scientists	30	<	(nc)
Computer analysts	30	<	(nc)
Engineers	10	<	0
Technicians	20	<	0
Computer programmer	20	<	0
Beauty shops (SIC 7230):			
Scientific and technical personnel	40	<	(nc)
Scientists	10	.0	20
Computer analysts	10	.0	20
Technicians	30	<	6
Computer programmer	30	<	6
Funeral service and crematories (SIC 7260):			
Scientific and technical personnel	20	<	(nc)
Scientists	10	<	(nc)
Computer analysts	10	<	(nc)
Technicians	10	<	0
Computer programmer	10	<	0
Misc. personal services (SIC 7290):			
Scientific and technical personnel	130	.1	(nc)
Scientists	60	<	(nc)
Computer analysts	60	<	(nc)
Technicians	70	<	6
Computer programmer	70	<	6
Advertising (SIC 7310):			
Scientific and technical personnel	3,790	1.7	(nc)
Scientists	2,020	.9	(nc)
Operations and systems researchers and analysts	140	.1	4
Life scientists	20	<	44
Economists	700	.3	3
All other social scientists	10	.0	0
Computer analysts	1,150	.5	(nc)
Managers of scientific and technical personnel	260	.1	12
Engineers	560	.2	(nc)
Computer	480	.2	25

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Advertising (SIC 7310)—continued:			
Electrical/electronics	20	<	44
Other, n.e.c	60	<	(nc)
Technicians	950	.4	(nc)
Computer programmer	860	.4	30
Drafter	20	<	31
Electrical/electronics engineering technician	40	<	26
All other engineering technicians	30	<	24
Credit reporting and collection (SIC 7320):			
Scientific and technical personnel	3,140	2.7	(nc)
Scientists	1,060	.9	(nc)
Operations and systems researchers and analysts	110	.1	8
All other social scientists	50	<	(nc)
Computer analysts	900	.8	(nc)
Managers of scientific and technical personnel	340	.3	4
Engineers	390	.3	(nc)
Computer	300	.3	44
Electrical/electronics	30	<	75
Other, n.e.c	60	<	(nc)
Technicians	1,350	1.2	(nc)
Computer programmer	1,330	1.1	6
All other engineering technicians	20	<	(nc)
Mailing, reproduction, and stenographic (SIC 7330):			
Scientific and technical personnel	5,080	2.1	(nc)
Scientists	1,010	.4	(nc)
Operations and systems researchers and analysts	120	<	2
All other physical scientists	50	<	(nc)
Economists	50	<	6
All other social scientists	10	.0	0
Computer analysts	780	.3	(nc)
Managers of scientific and technical personnel	330	.1	2
Engineers	220	.1	(nc)
Computer	110	<	12
Electrical/electronics	20	<	0
Industrial	30	<	7
Mechanical	30	<	5
Other, n.e.c	30	<	33
Technicians	3,520	1.4	(nc)
Computer programmer	2,010	.8	5
Drafter	1,000	.4	19
Surveyor	20	<	23
Electrical/electronics engineering technician	350	.2	37
Mechanical engineering technicians	10	.0	0
All other engineering technicians	130	<	58

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Services to buildings (SIC 7340):			
Scientific and technical personnel	990	0.1	(nc)
Scientists	220	<	(nc)
Chemists	150	<	87
Life scientists	40	.0	75
Computer analysts	30	.0	46
Managers of scientific and technical personnel	60	<	44
Engineers	250	<	(nc)
Industrial	20	.0	7
Mechanical	120	<	0
Other, n.e.c.	110	<	(nc)
Technicians	460	<	(nc)
Computer programmer	30	.0	27
Electrical/electronics engineering technician	20	.0	0
Mechanical engineering technicians	40	.0	0
All other engineering technicians	10	.0	(nc)
Physical and life science technicians	360	<	95
Misc. equipment rental and leasing (SIC 7350):			
Scientific and technical personnel	3,720	1.8	(nc)
Scientists	270	.1	(nc)
All other physical scientists	10	.0	(nc)
Economists	50	<	0
All other social scientists	10	.0	69
Computer analysts	200	.1	(nc)
Managers of scientific and technical personnel	150	.1	9
Engineers	1,830	.9	(nc)
Computer	60	<	2
Electrical/electronics	40	<	48
Industrial	10	.0	0
Mechanical	860	.4	40
Sales	140	.1	1
Other, n.e.c.	720	.3	10
Technicians	1,470	.7	(nc)
Computer programmer	620	.3	9
Drafter	90	<	32
Electrical/electronics engineering technician	490	.2	36
Mechanical engineering technicians	50	<	38
All other engineering technicians	200	.1	(nc)
Physical and life science technicians	20	<	0
Personnel supply services (SIC 7360):			
Scientific and technical personnel	70,020	3.8	(nc)
Scientists	4,890	.3	(nc)
Operations and systems researchers and analysts	50	.0	14
All other mathematicians	10	.0	40

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Personnel supply services (SIC 7360)—continued:			
Chemists	560	<	12
Geologists, geophysicists, and earth scientists	180	<	9
All other physical scientists	20	.0	17
Life scientists	120	<	14
Economists	80	.0	31
All other social scientists	200	<	49
Computer analysts	3,670	.2	(nc)
Managers of scientific and technical personnel	820	<	5
Engineers	24,950	1.4	(nc)
Aeronautical	2,460	.1	31
Computer	5,450	.3	25
Electrical/electronics	4,660	.3	14
Industrial	1,420	.1	7
Mechanical	5,220	.3	17
Sales	180	<	22
Other, n.e.c.	5,560	.3	27
Technicians	39,360	2.2	(nc)
Computer programmer	5,420	.3	11
Drafter	17,750	1.0	40
Surveyor	1,710	.1	51
Electrical/electronics engineering technician	7,690	.4	15
Mechanical engineering technicians	2,020	.1	16
All other engineering technicians	3,840	.2	4
Physical and life science technicians	930	<	22
Computer and data processing services (SIC 7370):			
Scientific and technical personnel	359,550	40.6	(nc)
Scientists	110,790	12.5	(nc)
Operations and systems researchers and analysts	8,230	.9	8
All other mathematicians	220	<	9
Chemists	30	.0	21
Geologists, geophysicists, and earth scientists	420	<	58
Atmospheric and space scientists	550	.1	98
All other physical scientists	90	<	28
Life scientists	70	<	30
Economists	1,070	.1	13
All other social scientists	420	<	30
Computer analysts	99,690	11.2	(nc)
Managers of scientific and technical personnel	24,100	2.7	6
Engineers	81,350	9.2	(nc)
Aeronautical	130	<	7
Computer	56,060	6.3	5
Electrical/electronics	13,670	1.5	9
Industrial	1,460	.2	26
Mechanical	1,680	.2	19
Sales	2,960	.3	30
Other, n.e.c.	5,390	.6	22

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Computer and data processing services (SIC 7370)—continued:			
Technicians	143,310	16.2	(nc)
Computer programmer	127,030	14.3	3
Drafter	1,400	.2	23
Surveyor	40	.0	42
Electrical/electronics engineering technician	11,080	1.2	12
Mechanical engineering technicians	350	<	15
All other engineering technicians	3,270	.4	13
Physical and life science technicians	140	<	31
Misc. business services (SIC 7380):			
Scientific and technical personnel	33,300	2.5	(nc)
Scientists	3,970	.3	(nc)
Operations and systems researchers and analysts	340	<	17
All other mathematicians	40	.0	69
Chemists	210	<	12
All other physical scientists	90	<	(nc)
Life scientists	340	<	86
Economists	240	<	48
All other social scientists	260	<	57
Computer analysts	2,450	.2	(nc)
Managers of scientific and technical personnel	1,460	.1	10
Engineers	5,570	.4	(nc)
Aeronautical	270	<	75
Computer	880	.1	32
Electrical/electronics	740	.1	18
Industrial	370	<	39
Mechanical	2,400	.2	19
Sales	100	<	29
Other, n.e.c.	810	.1	22
Technicians	22,300	1.7	(nc)
Computer programmer	6,760	.5	22
Drafter	10,800	.8	12
Surveyor	480	<	43
Electrical/electronics engineering technician	880	.1	15
Mechanical engineering technicians	960	.1	54
All other engineering technicians	2,120	.2	22
Physical and life science technicians	300	<	34
Automobile rentals, no drivers (SIC 7510):			
Scientific and technical personnel	530	.3	(nc)
Scientists	250	.2	(nc)
Computer analysts	250	.2	(nc)
Managers of scientific and technical personnel	60	<	4
Technicians	220	.1	(nc)
Computer programmer	210	.1	4
All other engineering technicians	10	<	(nc)

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Automobile parking (SIC 7520):			
Scientific and technical personnel	70	0.1	(nc)
Scientists	10	<	0
Computer analysts	10	<	0
Managers of scientific and technical personnel	20	<	5
Engineers	10	<	32
Technicians	30	<	(nc)
Computer programmer	20	<	17
All other engineering technicians	10	<	(nc)
Automobile repair shops (SIC 7530):			
Scientific and technical personnel	250	<	(nc)
Scientists	30	<	19
Computer analysts	30	<	19
Managers of scientific and technical personnel	40	<	36
Engineers	60	<	42
Technicians	120	<	(nc)
Computer programmer	90	<	30
Drafter	20	.0	44
All other engineering technicians	10	.0	0
Automobile services, except repair (SIC 7540):			
Scientific and technical personnel	320	.2	(nc)
Scientists	20	<	(nc)
Computer analysts	20	<	(nc)
Managers of scientific and technical personnel	10	<	0
Engineers	30	<	0
Technicians	260	.1	(nc)
Computer programmer	20	<	19
Drafter	20	<	63
All other engineering technicians	220	.1	45
Electrical repair shops (SIC 7620):			
Scientific and technical personnel	1,960	1.8	(nc)
Scientists	100	.1	(nc)
Physical scientists	10	<	0
Computer analysts	90	.1	(nc)
Managers of scientific and technical personnel	130	.1	33
Engineers	680	.6	19

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Electrical repair shops (SIC 7620)—continued:			
Technicians	1,050	1.0	(nc)
Computer programmer	110	.1	13
Drafter	130	.1	11
All other engineering technicians	770	.7	49
Physical and life science technicians	40	<	34
Misc. repair shops (SIC 7690):			
Scientific and technical personnel	1,590	.7	(nc)
Scientists	170	.1	(nc)
Physical scientists	50	<	15
Computer analysts	120	<	(nc)
Managers of scientific and technical personnel	100	<	7
Engineers	580	.3	8
Technicians	740	.3	(nc)
Computer programmer	120	<	19
Drafter	180	.1	8
All other engineering technicians	420	.2	6
Physical and life science technicians	20	<	53
Motion picture production and services (SIC 7810):			
Scientific and technical personnel	11,120	7.5	(nc)
Scientists	740	.5	(nc)
Computer analysts	740	.5	(nc)
Engineers	2,200	1.5	(nc)
Electrical/electronics	1,420	1.0	28
Other, n.e.c.	780	.5	77
Technicians	8,180	5.5	(nc)
Computer programmer	520	.4	16
Drafter	60	<	23
Electrical/electronics engineering technician	520	.4	17
All other engineering technicians	7,080	4.8	(nc)
Motion picture distribution and services (SIC 7820):			
Scientific and technical personnel	460	2.9	(nc)
Scientists	90	.6	(nc)
Computer analysts	90	.6	(nc)
Engineers	40	.3	(nc)
Electrical/electronics	20	.1	0
Other, n.e.c.	20	.1	0
Technicians	330	2.1	(nc)
Computer programmer	90	.6	14
Drafter	20	.1	44
Electrical/electronics engineering technician	30	.2	12

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Motion picture distribution and services (SIC 7820)—continued:			
All other engineering technicians	190	1.2	(nc)
Motion picture theaters (SIC 7830):			
Scientific and technical personnel	80	.1	(nc)
Scientists	50	<	(nc)
Computer analysts	50	<	(nc)
Technicians	30	<	(nc)
Computer programmer	10	<	47
All other engineering technicians	20	<	(nc)
Video tape rental (SIC 7840):			
Scientific and technical personnel	70	.1	(nc)
Scientists	20	<	12
Computer analysts	20	<	12
Technicians	50	<	(nc)
Computer programmer	20	<	21
All other engineering technicians	30	<	(nc)
Dance studios, schools, and halls (SIC 7910):			
Scientific and technical personnel	20	.1	21
Technicians	20	.1	21
All other engineering technicians	20	.1	21
Producers, orchestras, and entertainers (SIC 7920):			
Scientific and technical personnel	1,160	.8	(nc)
Scientists	170	.1	(nc)
Computer analysts	170	.1	(nc)
Engineers	90	.1	(nc)
Electrical/electronics	20	<	7
Other, n.e.c.	70	<	42
Technicians	900	.6	(nc)
Computer programmer	80	.1	36
Electrical/electronics engineering technician	60	<	10
All other engineering technicians	750	.5	(nc)
Physical and life science technicians	10	<	0
Bowling centers (SIC 7930):			
Scientific and technical personnel	30	<	(nc)
Scientists	20	<	(nc)
Computer analysts	20	<	(nc)
Technicians	10	<	32
Computer programmer	10	<	32

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Commercial sports (SIC 7940):			
Scientific and technical personnel	900	0.8	(nc)
Scientists	80	.1	(nc)
Life scientists	10	<	0
Computer analysts	70	.1	(nc)
Engineers	60	<	(nc)
Electrical/electronics	20	<	6
Other, n.e.c.	40	<	34
Technicians	760	.7	(nc)
Computer programmer	60	<	5
Electrical/electronics engineering technician	40	<	48
All other engineering technicians	630	.6	(nc)
Physical and life science technicians	30	<	0
Misc. amusement, recreation services (SIC 7990):			
Scientific and technical personnel	2,240	.3	(nc)
Scientists	460	.1	(nc)
Life scientists	50	<	7
Computer analysts	410	<	(nc)
Engineers	400	<	(nc)
Electrical/electronics	150	<	8
Other, n.e.c.	250	<	6
Technicians	1,380	.2	(nc)
Computer programmer	300	<	11
Electrical/electronics engineering technician	430	<	10
All other engineering technicians	480	.1	(nc)
Physical and life science technicians	170	<	26
Offices and clinics of medical doctors (SIC 8010):			
Scientific and technical personnel	7,310	.5	(nc)
Scientists	5,640	.4	(nc)
All other mathematicians	30	.0	8
Physical scientists	200	<	46
Biological scientists	30	.0	0
Medical scientists	320	<	31
All other life scientists	140	<	0
Psychologists	3,450	.2	14
All other social scientists	320	<	73
Computer analysts	1,150	.1	(nc)
Managers of scientific and technical personnel	870	.1	37
Engineers	30	.0	17
Technicians	770	<	(nc)
Computer programmer	640	<	12
Physical and life science technicians	130	<	2

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Offices and clinics of dentists (SIC 8020):			
Scientific and technical personnel	30	0.0	(nc)
Scientists	10	.0	(nc)
Computer analysts	10	.0	(nc)
Managers of scientific and technical personnel	20	.0	62
Offices of osteopathic physicians (SIC 8030):			
Scientific and technical personnel	20	<	(nc)
Scientists	20	<	(nc)
Psychologists	10	<	40
Computer analysts	10	<	(nc)
Offices of other health practitioners (SIC 8040):			
Scientific and technical personnel	6,160	1.8	(nc)
Scientists	5,900	1.7	(nc)
All other life scientists	30	<	(nc)
Psychologists	5,650	1.6	11
All other social scientists	170	<	50
Computer analysts	50	<	11
Managers of scientific and technical personnel	110	<	24
Engineers	20	<	89
Technicians	130	<	(nc)
Computer programmer	90	<	11
Physical and life science technicians	40	<	61
Nursing and personal care facilities (SIC 8050):			
Scientific and technical personnel	1,810	.1	(nc)
Scientists	1,140	.1	(nc)
Psychologists	580	<	41
All other social scientists	290	<	65
Computer analysts	270	<	(nc)
Managers of scientific and technical personnel	300	<	18
Engineers	130	<	35
Technicians	240	<	(nc)
Computer programmer	230	<	31
Physical and life science technicians	10	.0	0
Medical and dental laboratories (SIC 8070):			
Scientific and technical personnel	4,310	2.3	(nc)
Scientists	2,440	1.3	(nc)
Physical scientists	430	.2	8
Biological scientists	380	.2	11
Medical scientists	1,020	.5	34

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Medical and dental laboratories (SIC 8070)—continued:			
All other life scientists	100	<	4
All other social scientists	20	<	97
Computer analysts	490	.3	(nc)
Managers of scientific and technical personnel	630	.3	6
Engineers	160	.1	18
Technicians	1,080	.6	(nc)
Computer programmer	370	.2	4
Physical and life science technicians	710	.4	3
Home health care services (SIC 8080):			
Scientific and technical personnel	720	.2	(nc)
Scientists	290	.1	(nc)
Psychologists	40	<	6
All other social scientists	20	.0	14
Computer analysts	230	<	(nc)
Managers of scientific and technical personnel	180	<	21
Engineers	30	<	51
Technicians	220	<	11
Computer programmer	220	<	11
Health and allied services, n.e.c. (SIC 8090):			
Scientific and technical personnel	6,210	2.3	(nc)
Scientists	4,840	1.8	(nc)
All other mathematicians	20	<	30
Physical scientists	60	<	34
Biological scientists	60	<	2
Medical scientists	160	.1	11
All other life scientists	170	.1	4
Psychologists	3,490	1.3	4
All other social scientists	460	.2	2
Computer analysts	420	.2	(nc)
Managers of scientific and technical personnel	360	.1	3
Engineers	50	<	14
Technicians	960	.4	(nc)
Computer programmer	510	.2	6
Physical and life science technicians	450	.2	9
Legal services (SIC 8110):			
Scientific and technical personnel	2,900	.3	(nc)
Scientists	1,920	.2	(nc)
Operations and systems researchers and analysts	80	<	29
All other mathematicians	10	.0	(nc)

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Legal services (SIC 8110)—continued:			
Social scientists	460	<	50
Computer analysts	1,370	.2	(nc)
Managers of scientific and technical personnel	220	<	15
Engineers	60	<	(nc)
Computer	40	.0	7
Other, n.e.c.	20	.0	(nc)
Technicians	700	.1	(nc)
Computer programmer	650	.1	13
Drafter	40	.0	51
All other engineering technicians	10	.0	(nc)
Individual and family services (SIC 8320):			
Scientific and technical personnel	5,410	1.0	(nc)
Scientists	4,700	.8	(nc)
Statisticians	100	<	19
All other mathematicians	10	.0	0
Life scientists	90	<	0
Economists	20	.0	26
Psychologists	3,760	.7	11
All other social scientists	320	.1	26
Computer analysts	400	.1	(nc)
Managers of scientific and technical personnel	200	<	22
Engineers	10	.0	0
Technicians	500	.1	(nc)
Computer programmer	360	.1	12
All other engineering technicians	20	.0	(nc)
Physical and life science technicians	120	<	0
Job training and related services (SIC 8330):			
Scientific and technical personnel	1,200	.5	(nc)
Scientists	840	.3	(nc)
Statisticians	30	<	3
Physical scientists	10	.0	0
Life scientists	10	.0	13
Economists	20	<	10
Psychologists	500	.2	11
All other social scientists	100	<	9
Computer analysts	170	.1	(nc)
Managers of scientific and technical personnel	110	<	12
Engineers	50	<	12
Technicians	200	.1	(nc)
Computer programmer	160	.1	5
All other engineering technicians	30	<	42

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Job training and related services (SIC 8330)—continued:			
Physical and life science technicians	10	0.0	20
Child day care services (SIC 8350):			
Scientific and technical personnel	330	.1	(nc)
Scientists	260	<	(nc)
Psychologists	180	<	32
All other social scientists	10	.0	64
Computer analysts	70	<	(nc)
Managers of scientific and technical personnel	10	.0	25
Technicians	60	<	60
Computer programmer	60	<	60
Residential care (SIC 8360):			
Scientific and technical personnel	2,420	.4	(nc)
Scientists	2,060	.4	(nc)
Statisticians	30	<	20
Economists	10	.0	0
Psychologists	1,650	.3	7
All other social scientists	100	<	16
Computer analysts	270	<	(nc)
Managers of scientific and technical personnel	100	<	12
Engineers	50	<	9
Technicians	210	<	(nc)
Computer programmer	140	<	9
All other engineering technicians	70	<	(nc)
Social services, n.e.c. (SIC 8390):			
Scientific and technical personnel	2,300	1.2	(nc)
Scientists	1,500	.8	(nc)
Statisticians	40	<	11
All other mathematicians	10	<	54
Physical scientists	50	<	74
Life scientists	40	<	25
Economists	50	<	23
Psychologists	240	.1	12
All other social scientists	580	.3	7
Computer analysts	490	.3	(nc)
Managers of scientific and technical personnel	280	.2	9
Engineers	100	<	14
Technicians	420	.2	(nc)
Computer programmer	290	.2	6
Drafter	10	<	0
All other engineering technicians	60	<	10

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Social services, n.e.c. (SIC 8390)—continued:			
Physical and life science technicians	60	<	13
Museums and art galleries (SIC 8410):			
Scientific and technical personnel	970	1.8	(nc)
Scientists	470	.8	(nc)
Physical scientists	100	.2	3
Life scientists	110	.2	2
Social scientists	160	.3	5
Computer analysts	100	.2	(nc)
Managers of scientific and technical personnel	160	.3	10
Engineers	100	.2	6
Technicians	240	.4	(nc)
Computer programmer	100	.2	8
Physical and life science technicians	140	.2	19
Botanical and zoological gardens (SIC 8420):			
Scientific and technical personnel	490	2.9	(nc)
Scientists	260	1.5	(nc)
Physical scientists	10	.1	0
Life scientists	230	1.4	2
Computer analysts	20	.1	0
Managers of scientific and technical personnel	80	.5	0
Engineers	10	.1	0
Technicians	140	.8	(nc)
Computer programmer	20	.1	0
Physical and life science technicians	120	.7	2
Business associations (SIC 8610):			
Scientific and technical personnel	3,090	3.0	(nc)
Scientists	1,500	1.4	(nc)
Statisticians	160	.2	4
All other mathematicians	20	<	17
Physical scientists	90	.1	31
Life scientists	40	<	13
Economists	470	.4	4
All other social scientists	90	.1	(nc)
Computer analysts	630	.6	(nc)
Managers of scientific and technical personnel	570	.6	29
Engineers	280	.3	9
Technicians	740	.7	(nc)
Computer programmer	480	.5	6
Drafter	20	<	8

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Business associations (SIC 8610)—continued:			
All other engineering technicians	120	0.1	12
Physical and life science technicians	120	.1	27
Professional organizations (SIC 8620):			
Scientific and technical personnel	1,670	3.1	(nc)
Scientists	860	1.6	(nc)
Statisticians	110	.2	17
Physical scientists	30	.1	36
Life scientists	80	.2	10
Economists	50	.1	0
Psychologists	10	<	52
All other social scientists	40	.1	3
Computer analysts	540	1.0	(nc)
Managers of scientific and technical personnel	260	.5	5
Engineers	80	.2	1
Technicians	470	.9	(nc)
Computer programmer	380	.7	9
Drafter	60	.1	0
All other engineering technicians	20	<	0
Physical and life science technicians	10	<	0
Labor organizations (SIC 8630):			
Scientific and technical personnel	720	.5	(nc)
Scientists	430	.3	(nc)
Statisticians	80	.1	8
Economists	60	<	0
All other social scientists	140	.1	2
Computer analysts	150	.1	(nc)
Managers of scientific and technical personnel	40	<	10
Engineers	20	<	9
Technicians	230	.2	(nc)
Computer programmer	220	.2	3
All other engineering technicians	10	<	(nc)
Civic and social associations (SIC 8640):			
Scientific and technical personnel	1,810	.4	(nc)
Scientists	950	.2	(nc)
Statisticians	50	<	11
All other mathematicians	10	.0	11
Physical scientists	50	<	0
Life scientists	210	<	10
Economists	80	<	2
Psychologists	60	<	22
All other social scientists	80	<	4
Computer analysts	410	.1	(nc)

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Civic and social associations (SIC 8640)—continued:			
Managers of scientific and technical personnel	190	<	9
Engineers	140	<	6
Technicians	530	.1	(nc)
Computer programmer	240	.1	9
Drafter	110	<	8
All other engineering technicians	40	<	7
Physical and life science technicians	140	<	9
Political organizations (SIC 8650):			
Scientific and technical personnel	90	1.7	(nc)
Scientists	80	1.5	(nc)
Computer analysts	80	1.5	(nc)
Managers of scientific and technical personnel	10	.2	51
Religious organizations (SIC 8660):			
Scientific and technical personnel	430	.4	(nc)
Scientists	140	.1	(nc)
All other mathematicians	20	<	(nc)
All other social scientists	10	<	(nc)
Computer analysts	110	.1	(nc)
Managers of scientific and technical personnel	30	<	16
Engineers	50	<	0
Technicians	210	.2	(nc)
Computer programmer	200	.2	18
All other engineering technicians	10	<	(nc)
Membership organizations, n.e.c. (SIC 8690):			
Scientific and technical personnel	920	1.4	(nc)
Scientists	460	.7	(nc)
Statisticians	30	<	0
Physical scientists	10	<	26
Life scientists	170	.3	27
Economists	30	<	12
All other social scientists	60	.1	32
Computer analysts	160	.2	(nc)
Managers of scientific and technical personnel	210	.3	6
Technicians	250	.4	(nc)
Computer programmer	230	.4	4
All other engineering technicians	20	<	(nc)
Engineering and architectural services (SIC 8710):			
Scientific and technical personnel	454,420	58.9	(nc)

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Engineering and architectural services (SIC 8710)—continued:			
Scientists	28,330	3.7	(nc)
Operations and systems researchers and analysts	2,920	.4	37
Statisticians	80	<	4
All other mathematicians	70	<	(nc)
Chemists	2,170	.3	10
Geologists, geophysicists, and earth scientists	7,180	.9	12
Atmospheric and space scientists	290	<	39
Physicists and astronomers	270	<	32
All other physical scientists	5,320	.7	11
Agricultural scientists	20	.0	10
Biological scientists	770	.1	16
All other life scientists	290	<	(nc)
Economists	300	<	29
Psychologists	110	<	65
Urban and regional planners	1,030	.1	15
All other social scientists	200	<	12
Computer analysts	7,310	1.0	(nc)
Managers of scientific and technical personnel	32,220	4.2	4
Engineers	177,410	23.0	(nc)
Aeronautical	4,950	.6	15
Agricultural	820	.1	42
Chemical	5,160	.7	7
Civil	68,930	8.9	4
Computer	11,440	1.5	7
Electrical/electronics	32,750	4.2	4
Industrial	4,620	.6	6
Marine	980	.1	17
Mechanical	27,430	3.6	4
Metallurgical/metallurgists	790	.1	39
Safety	1,840	.2	27
Nuclear	2,670	.4	8
Sales	1,710	.2	8
Other, n.e.c.	13,320	1.7	6
Technicians	216,460	28.1	(nc)
Computer programmer	5,730	.7	6
Drafter	92,580	12.0	4
Surveyor	52,050	6.8	(nc)
Electrical/electronics engineering technician	15,670	2.0	5
Mechanical engineering technicians	10,580	1.4	5
Civil engineering technician	24,880	3.2	5
All other engineering technicians	10,170	1.3	8
Biological science technician	420	<	59
Chemical technicians, except health	980	.1	11
Nuclear technicians	650	.1	23
All other physical and life science technicians	2,750	.4	(nc)
Accounting, auditing, and bookkeeping (SIC 8720):			
Scientific and technical personnel	12,960	2.6	(nc)
Scientists	7,210	1.4	(nc)

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Accounting, auditing, and bookkeeping (SIC 8720)—continued:			
Operations and systems researchers and analysts	810	0.2	13
All other mathematicians	590	.1	(nc)
Economists	40	<	6
All other social scientists	10	.0	(nc)
Computer analysts	5,760	1.2	(nc)
Managers of scientific and technical personnel	750	.2	5
Engineers			
Civil	1,180	.2	(nc)
Computer	20	.0	0
Electrical/electronics	250	<	3
Industrial	30	<	21
Mechanical	20	.0	10
Other, n.e.c.	60	<	0
Other, n.e.c.	800	.2	(nc)
Technicians			
Computer programmer	3,820	.8	(nc)
Drafter	3,580	.7	14
Electrical/electronics engineering technician	20	.0	0
Mechanical engineering technicians	40	<	0
Civil engineering technician	10	.0	0
All other engineering technicians	40	<	0
All other physical and life science technicians	120	<	(nc)
All other physical and life science technicians	10	.0	(nc)
Research and testing services (SIC 8730):			
Scientific and technical personnel	247,360	42.4	(nc)
Scientists			
Operations and systems researchers and analysts	88,810	15.2	(nc)
Statisticians	2,030	.4	12
All other mathematicians	2,080	.4	10
Chemists	1,320	.2	(nc)
Geologists, geophysicists, and earth scientists	18,040	3.1	9
Atmospheric and space scientists	2,490	.4	10
Physicists and astronomers	390	.1	12
All other physical scientists	5,330	.9	5
Agricultural scientists	7,880	1.4	12
Biological scientists	1,090	.2	23
Medical scientists	12,680	2.2	13
All other life scientists	5,890	1.0	11
Economists	4,850	.8	15
Psychologists	7,790	1.3	16
Urban and regional planners	1,750	.3	12
All other social scientists	920	.2	57
Computer analysts	4,270	.7	12
Computer analysts	10,010	1.7	(nc)
Managers of scientific and technical personnel	18,470	3.2	5
Engineers			
Aeronautical	68,090	11.7	(nc)
Agricultural	2,290	.4	18
Chemical	160	<	22
Civil	3,190	.6	4
Civil	2,170	.4	8

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Research and testing services (SIC 8730)—continued:			
Computer	8,600	1.5	10
Electrical/electronics	20,560	3.5	4
Industrial	1,340	.2	8
Marine	230	<	13
Mechanical	8,430	1.4	7
Metallurgical/metallurgists	1,800	.3	9
Safety	1,890	.3	19
Nuclear	1,750	.3	10
Sales	400	.1	20
Other, n.e.c	15,280	2.6	5
Technicians	71,990	12.3	(nc)
Computer programmer	9,350	1.6	6
Drafter	2,830	.5	6
Surveyor	1,330	.2	(nc)
Electrical/electronics engineering technician	10,200	1.8	4
Mechanical engineering technicians	3,970	.7	11
Civil engineering technician	2,590	.4	38
All other engineering technicians	7,250	1.2	5
Biological science technician	9,320	1.6	10
Chemical technicians, except health	13,120	2.2	10
Nuclear technicians	1,480	.2	10
All other physical and life science technicians	10,550	1.8	(nc)
Services, n.e.c. (SIC 8990):			
Scientific and technical personnel	15,600	37.7	(nc)
Scientists	8,840	21.4	(nc)
Operations and systems researchers and analysts	20	<	0
Statisticians	360	.9	<
All other mathematicians	3,010	7.3	(nc)
Chemists	290	.7	14
Geologists, geophysicists, and earth scientists	2,080	5.0	4
Atmospheric and space scientists	720	1.7	15
Physicists and astronomers	140	.3	30
All other physical scientists	1,080	2.6	20
Biological scientists	190	.5	13
Medical scientists	40	.1	52
All other life scientists	50	.1	23
Economists	50	.1	64
Psychologists	210	.5	27
Urban and regional planners	30	.1	15
All other social scientists	140	.3	26
Computer analysts	430	1.0	(nc)
Managers of scientific and technical personnel	780	1.9	7
Engineers	2,030	4.9	(nc)
Chemical	160	.4	5
Civil	520	1.3	3
Computer	80	.2	23
Electrical/electronics	90	.2	27
Industrial	30	.1	34
Mechanical	130	.3	14

See explanatory information, if any, and SOURCE at end of table.

Table A-5. Scientists, engineers, and technicians in nonmanufacturing industries as a percentage of total industry employment, and the relative error: 1993

Industry and occupation	Total	Percentage of total industry employment	Relative error
Services, n.e.c. (SIC 8990)—continued:			
Safety	80	0.2	34
Nuclear	420	1.0	11
Sales	30	.1	38
Other, n.e.c.	490	1.2	(nc)
Technicians	3,950	9.6	(nc)
Computer programmer	600	1.4	6
Drafter	340	.8	4
Surveyor	110	.3	(nc)
Electrical/electronics engineering technician	30	.1	14
Mechanical engineering technicians	20	<	7
Civil engineering technician	240	.6	8
All other engineering technicians	630	1.5	13
Biological science technician	50	.1	12
Chemical technicians, except health	150	.4	11
Nuclear technicians	940	2.3	7
All other physical and life science technicians	840	2.0	(nc)

NOTE: Because of rounding, components may not add to totals.

KEY: nc = not computed
 < = The estimated actual value is less than 50 for numbers and less than 0.05 for percents.
 0 = Data were collected and the reported number or value was zero.
 n.e.c. = not elsewhere classified

SOURCE: National Science Foundation/SRS, using data from U.S. Department of Labor/Bureau of Labor Statistics, Occupational Employment Statistics Survey